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CENTRAL INTELLIGENCE AGENCY
WASHINGTON 25, D.C.

20 JUL 1961

Dr. Jerome B. Wiesner
Special Assistant to the President for
Science and Technology
The White House
Washington 25, D. C.

Dear Jerry,

Attached for your information is a brief summary of the aircraft displayed by the Soviets at their 9 July show. This summary takes note of the continuing Soviet research and development efforts associated with the Soviet Air Force. Under each aircraft heading is a brief technical appreciation and a statement of significance as we see it.

There is a great deal more analysis to be done, and I hope you will accept this summary as a provisional statement. Photographs are attached for your use.

Sincerely,


Herbert Scoville, Jr.
Assistant Director

Attachment:

1. Summary (S)
2. 13 Photographs - 4 Conf + 9 Secret

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RELEASED September 99

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SOVIET JULY 9 AIR DISPLAY

1. Tu-95 BEAR

Fifteen Tu-95 Bear aircraft, each carrying one air-to-surface missile, flew in the parade. The missile is estimated to be the Cherub with a range of 350 n.m. and a speed of MACH 1.5-2. The Bear required considerable structural modification to take the missile, and the bombing radar was replaced with a new type for use with the missile. The modified aircraft cannot be used as a bomber. Radius of the aircraft with the missile is about 4,000 n.m.

About 50 Bear aircraft are operational; however, not all have been converted as missile carriers. The appearance of Bear with a missile tends to confirm our estimates that these aircraft are intended for stand-off attack of heavily defended targets.

2. Tu-16 BADGER

Fifteen Badgers each carrying one air-to-surface missile flew in the parade. The missile is estimated to be the Truckle MACH 1.5, 100 n.m. anti-shipping missile. The aircraft required considerable modification in order to take the missile. Combat radius of the aircraft with the missile is estimated to be 1,600 n.m. Although the bombing radar was still on some of the Badgers, it does not seem likely that these aircraft could be used as bombers.

All of the missile equipped Badgers are assigned to Naval aviation units which have been trained to attack ships at sea.

3. BOUNDER

One aircraft flew in the parade. The aircraft appears to be essentially the same as when first seen in 1958 except that the inboard engines have afterburners. Basic engines are in the 27,000 lb. thrust class augmented to 40,000 lbs. thrust with afterburning. Although the aircraft is very large, it appears to

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have a subsonic range of only 3,000 n.m. With the present engine installations the speed is most likely limited to about MACH 1.5. With modified air inlets and afterburners on all engines, the speed could be on the order of MACH 2-2.25 but range will continue to be limited.

In addition to the Bounder displayed there is another large aircraft, partially assembled on Fili airfield, where Bounder was built. This new aircraft is most likely a modification or variant of the Bounder.

The continued efforts on aircraft of this type show a continued interest of the Soviets in developing long range supersonic bombers.

4. BLINDER

Ten aircraft initially nicknamed Bullshot by the attache flew in the parade. These aircraft are, in fact, the Blinder which was seen at Kazan in early 1960. This appears to be a medium bomber with performance similar to the B-58. The lead aircraft had a modified nose and may be equipped for refueling. Although the photo did not show the underside of the aircraft clearly, there appeared to be an air-to-surface missile under the fuselage. Further P.I. will be required to make a positive determination. This aircraft appears to have a maximum speed of MACH 1.8, and a combat radius of about 1,650 n.m. with 200 n.m. supersonic dash.

It is estimated that the Blinder is in production and is entering operational use. It is likely that some will be assigned to Naval aviation.

5. BACKFIN TYPE (FATEFUL) NEW

Two aircraft similar to Backfin, but appearing to be a completely new aircraft, flew in the parade. (Backfin was first seen in 1957; nothing like it was seen again until the 1961 Air Show.) These aircraft were first mistaken for Blinder by the attache. These aircraft had what appeared to be air-to-air missiles or rockets and an AI radar. There is also what appears to be a large radome under the fuselage. This appears to be a long-range interceptor. It has a span of about 58' and a length of 90'. There is as yet no detailed

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evaluation of performance for this aircraft; however, it is estimated to have a MACH 2 capability.

Although there has been considerable speculation that the original Backfin was a long-range interceptor, there was no information available to determine if this was so.

The belly radome tends to indicate a capability to intercept low flying aircraft.

6. LARGER FLASHLIGHT "B" (FIREBAR) NEW

Nine of these aircraft flew in the parade. This appears to be completely new aircraft more nearly like the Blowlamp than the Flashlight "B". Two of a formation of three had radomes which may house bombing radar. Engine inlets had spikes indicating supersonic speed capability, possibly MACH 1.5 or slightly better. This aircraft is considerably larger than Flashlight "B" and is believed to be a new general purpose aircraft with tactical, reconnaissance and possibly fighter capabilities.

When a replacement for the obsolete Il-28 light bomber failed to appear after the Blowlamp had been seen, we thought the Soviets would use modified fighter aircraft in the tactical role. The appearance of Firebar indicates that they are still producing aircraft specifically for tactical uses.

7. LARGE UNIDENTIFIED FIGHTER (FLIPPER) NEW

Three delta winged fighters flew across the field, one of which was a new type. This aircraft appeared to be about 47' long with a 28' wing span. There was a single large air inlet in the nose for the two engines in the rear of the fuselage. Weight is about 50,000 lbs. and armament consisted of 2 new air-to-air missiles. It is likely to perform in the MACH 2-2.5 speed range and have an altitude capability of 70,000 feet.

This aircraft has not been seen before, but the large radome in the nose seems to fit it to the role of the "estimated" 1962 all-weather fighter carried in our estimates for the past few years.

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8. FISHPOT "B"

Eighteen aircraft flew in the parade. This aircraft is similar to the original Fishpot first seen in 1956 except for the center spike inlet. The aircraft is estimated to have a speed of 1,000 knots and a range of 700 n.m. with the external tanks as shown. Some of the aircraft carried two air-to-air missiles while others carried four. AI gear appeared to be in the inlet spike.

This aircraft had been reported several times by travelers; however, this is the first time observers have had a good clear view. This aircraft is in operational use and will give the P.V.O. a much better all weather capability.

9. FISHBED WITH ASSIST TAKEOFF

A Fishbed with two rockets, one on each side of the lower part of the fuselage took off from the grass airfield.

This is strictly an assist take-off type rocket installation.

10. FISHBED (WITH LIQUID ROCKET BOOSTER)

A Fishbed, with a liquid rocket engine in addition to the turbo-jet, flew over the airfield, ignited both the afterburner and rocket, and climbed vertically at a very high rate.

This is very likely the E-66 aircraft which has established an altitude record of 112,000 feet and a speed record of 1,160 knots around a 100 kilometer closed course. We believe this aircraft has very little military significance.

11. TURBOPROP FLYING BOAT (MAIL) NEW

A new twin engined turboprop flying boat with MAD gear was displayed. It is very similar to the old Madge but cleaned up a bit and new engines installed. Speed is estimated at 250 knots.

There have been previous reports of this boat, but this is the first sighting. This appears to be a fair ASW aircraft.

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12. JET FLYING BOAT (MANDRAKE) NEW

Four twin jet flying boats about the same size as the turbo-prop boat, but without the MAD gear, was displayed. A twin jet flying boat model labeled the BE-8 was shown at the Brussels Fair; however, it is likely that this is a more advanced design.

This aircraft is probably in operation. It is most likely a reconnaissance type.

13. YAK-32 JET TRAINER

The Yak-32 jet trainer was displayed for the first time, but it was announced, and pictures printed, in the Soviet Press on 3 March 1961 after it established a new altitude record for light jet aircraft (46,862').

This aircraft will partially replace the Yak-18 in the Soviet Air Force and Dosaf.

14. HOOP, VTOL AIRCRAFT

This is a Kamov design, and has been observed occasionally for several years in partial assembled state on Lyubertsy Airfield at the south edge of Moscow. This is the first time it was seen in flight. Maneuverability appeared excellent. This is the first known Soviet VTOL effort and according to Kamov further development will be required before an operational version is attained.

15. FLYING CRANE HELICOPTER (HARK) NEW

This appears to be a modification of the Mi-6 Hook. The fuselage has been slimmed down and a long legged 4-wheel landing gear installed. This was mentioned in the Soviet Press just prior to the show and first seen at the show carrying a small house.

16. SECOND TURBINE POWERED HELICOPTER (HIP) NEW

This vehicle was not known before the show. It is similar to the Mi-6 (Hook) in appearance, but smaller than Hook and larger than the Mi-4 (Hound). It had aeroflot markings.

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17. THIRD TURBINE POWERED HELICOPTER (HARP) NEW

This helicopter was also unknown prior to the air show. It is believed to be a Kamov design. The configuration is similar to the Ka-18 with co-axial counterrotating blades and triple tail. Size is comparable to the Mi-4 Hound. Interesting features are gun armament forward and a rocket mounted on each side. It was reportedly assigned to Naval aviation.

18. COOKPOT (Tu-124)

Tupolev's most recent commercial type is a twin jet transport similar in configuration to the older Camel (Tu-104) but smaller, carrying 44 first class or 55-60 tourist class passengers. It was reported by the Soviets to have turbofan engines. This aircraft was first announced in the Soviet Press in June 1960 and shown for the first time in the air show. It is intended for service on feeder lines.

19. COKE (An-24)

Antonov's latest design is a twin turboprop transport very similar to the Fokker F 27. It will carry 32 to 42 passengers on routes up to 650 n.m. This aircraft was first announced in the Soviet Press in June 1960 and shown for the first time in the air show. Like the Tu-124 this aircraft will be used on feeder lines.

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USSR
NEW DELTA WING FOUR-JET BOMBER [REDACTED], SAID TO HAVE FLOWN SEVERAL TIMES THE
SPEED OF SOUND, AND ITS JET FIGHTER ESCORT AT THE MOSCOW AIR SHOW. 9 JULY 1961
[REDACTED]
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1. Large, dark, irregular shape



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AUTOMATICALLY DECLASSIFIED. DOD DIR 5200.10

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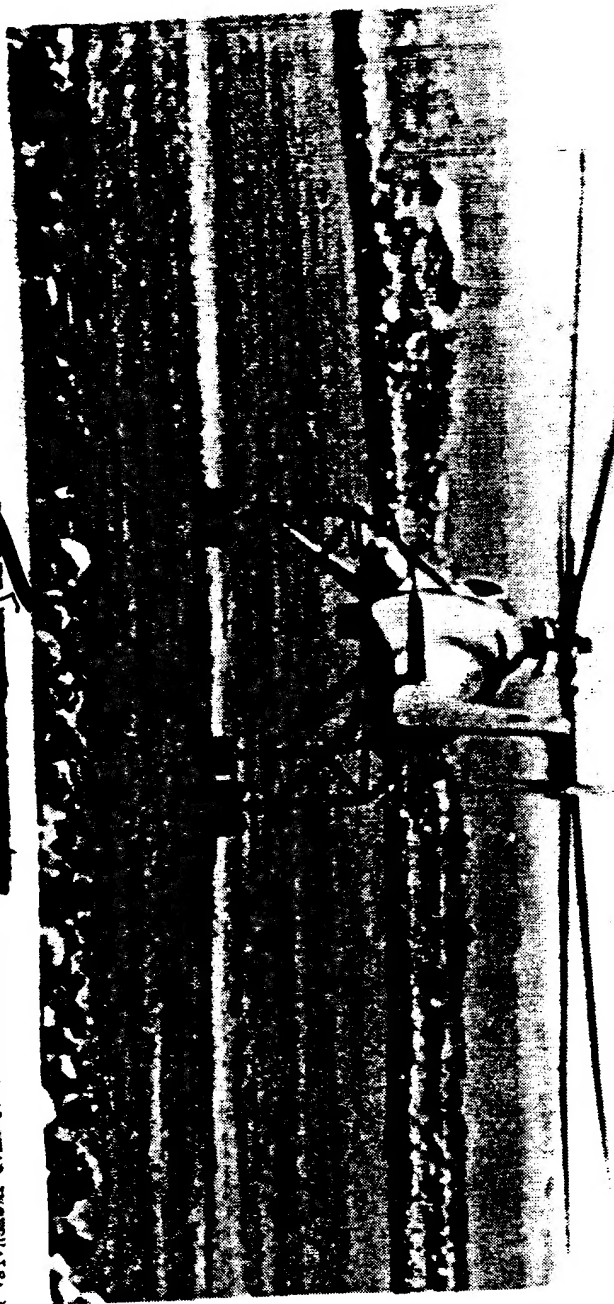
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